SEQUENCE LISTING

<110> Garnaat, Carl W.
     Lowe, Keith S.
     Roth, Bradley A.

<120> ZmAxig1 Polynucleotides and Methods of
     Use

<130> 1016

<140> US 09/905,558
<141> 2001-07-13

<150> US 60/217,942
<151> 2000-07-13

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acgcacatga ccgcagtgcg cgcggggctg atcaagggaa agtgatcgg atg gag ctg   178
                                                        Met Glu Leu
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gag ctc ggg ctc gcg ccg ccg aac ccg cat cag ccg ctg gct gcc gcc   226
Glu Leu Gly Leu Ala Pro Pro Asn Pro His Gln Pro Leu Ala Ala Ala
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gcc gag ttc gtc ggt ctc ctc agc agc tcg gct ggc tcg tgc ggg aac   274
Ala Glu Phe Val Gly Leu Leu Ser Ser Ser Ala Gly Ser Cys Gly Asn
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aag agg gtt ctc ggc gac gcg ttc ggg gcc gcc aag gcg gcc acg ctt   322
Lys Arg Val Leu Gly Asp Ala Phe Gly Ala Ala Lys Ala Ala Thr Leu
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Pro Leu Phe Val Cys Glu Asp Gly Asp Gly Gly Gly Gly Asp Arg Asp
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Arg Asp Gly Val Val Asp His Glu Gln Gln Ser Asn Asn Val Pro Arg
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Lys Lys Arg Leu Val Gly Trp Pro Pro Val Lys Cys Ala Arg Arg Arg
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Ser Cys Gly Gly Gly Tyr Val Lys Val Lys Leu Glu Gly Val Pro Ile
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ggg cgg aag gtg gac gtg tcc atc cac ggc tcg tac cag gag ctg ctc      562
Gly Arg Lys Val Asp Val Ser Ile His Gly Ser Tyr Gln Glu Leu Leu
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cgc acg ctc gag agc atg ttc cct tcg ggt aac caa caa gat cat gca      610
Arg Thr Leu Glu Ser Met Phe Pro Ser Gly Asn Gln Gln Asp His Ala
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gaa gac gag gtg gtg gtc tcg cac gag cgc cgc cgt cgc cat cct tat      658
Glu Asp Glu Val Val Val Ser His Glu Arg Arg Arg Arg His Pro Tyr
            150                 155                 160

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Val Val Thr Tyr Glu Asp Gly Glu Gly Asp Trp Leu Leu Val Gly Asp
        165                 170                 175

gat gtg ccg tgg gag gtc ttt gtc aag tca gtg aag cgg ctc aag ata      754
Asp Val Pro Trp Glu Val Phe Val Lys Ser Val Lys Arg Leu Lys Ile
180                 185                 190                 195

ctt gcg tag ccgacggtcg gcgcctcaga gacgtcgtgt ggtccgtctc             803
Leu Ala  *


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Cys Gly Asn Lys Arg Val Leu Gly Asp Ala Phe Gly Ala Ala Lys Ala
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Ala Thr Leu Pro Leu Phe Val Cys Glu Asp Gly Asp Gly Gly Gly Gly
    50                  55                  60
Asp Arg Asp Arg Asp Gly Val Val Asp His Glu Gln Gln Ser Asn Asn
65                  70                  75                  80
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     130   135   140
Asp His Ala Glu Asp Glu Val Val Val Ser His Glu Arg Arg Arg Arg
145   150   155   160
His Pro Tyr Val Val Thr Tyr Glu Asp Gly Glu Gly Asp Trp Leu Leu
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Leu Lys Ile Leu Ala
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tag                                                                     3123

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aggaccggct gatgccgatc gcgaacgtga tccgcatcat gcggcgcgtg ctgccggcgc      240
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tgctcaagtc ccgcgggcca gtctccggag ccgccatgct accgcaccac caccaccacc      600
acgacatgca gatgcacgcc gccatgtacg ggggaacggc cgtgcccccg ccggccgggc      660
ctcctcacca cggcgggttc ctcatgccac acccacaggg tagtagccac tacctgcctt      720
acgcgtacga gcccacgtac ggcggtgagc acgccatggc tgcatactat ggaggcgccg      780
cgtacgcgcc cggcaacggc gggagcggcg acggcagtgg cagtggcggc ggtggcggga      840
gcgcgtcgca cacaccgcag ggcagcggcg gcttggagca cccgcacccg ttcgcgtaca      900
agtagctagt tcgtacgtcg ttcgacttga gcaagccatc gatctgctga tctgaacgta      960
cgctgtattg tacacgcatg cacgtacgta tcggcggcta gctctcctgt ttaagttgta     1020
ctgtgattct gtcccggccg gctagcaact tagtatcttc cttcagtctc tagtttctta     1080
gcagtcgtag aagtgttcaa tgcttgccag tgtgttgttt tagggccggg gtaaaccatc     1140
cgatgagatt atttcaaaaa aaaaaaaaaa aaa                                  1173
```

<210> 19
<211> 763
<212> DNA
<213> Zea mays

<400> 19
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gcacgaggca agaccgtcac ctccgaggac atcgtgtggg ccatgagccg cctcggcttc       60
gacgactacg tcgcgcccct cggcgccttc ctccagcgca tgcgcgacga cagcgaccac      120
ggcggtgaag agcgcggcgg ccctgcaggg cgtggtggct cgcgccgcgg ctcgtcgtcc      180
ttgccgctcc actgcccgca gcagatgcac cacctgcacc cagccgtctg ccggcgtccg      240
caccagagcg tgtcgcctgc tgcaggatac gccgtccggc ccgttccccg cccgatgcca      300
gcccgtgggt accgcatgca gggcggagac caccgcagcg tgggcggcgt ggctccctgc      360
agctacggag gggcgctcgt ccaggccggt ggaacccaac acgttgttgg attccacgac      420
gacgaggcaa gctcttcgag tgaaaatccg ccgccgagg ggcgtgccgc tggctcgaac      480
tagcctagct tctcagttcc ccgtgtacaa taagaggggc ggtcgcggcg ccgcgccgcg      540
cccttgggtt gggccgggcg ctatgctgca gtttggtttg taaactaacg agcctagggt      600
agctggtgca cgcgcgccac ctcgccggac gtcgccgtcg tcgtcggcat ggacttaacc      660
ggcgggccct gttgttattt ctcaagtttg tagccaacgc actgttcggt gcgttccata      720
atttaattta ccatgttgct ctcgaaaaaa aaaaaaaaaa aaa                        763
```

<210> 20
<211> 622
<212> DNA
<213> Zea mays

<220>
<221> misc_feature
<222> (1)...(622)
<223> n = a, t, c, or g

<400> 20
```
gcatgaataa tccccaaaac cctaaagcca gtgctccttg caccttgcca ccggagcttc       60
ccaaagaagc agtggcgacc gacgaagcac cgccgccaat gggcaacaac aacaacacgg      120
aatcggcgac ggcgacgatg gtccgggagc aggaccggct gatgcccgtg ccaacgtgt      180
cccgcatcat cgccaagtg ctgcctccgt acgccaagat ctccgacgac gcccangaag      240
tnatccaaga attgctnttc ggaatttcat cacttncgtc ctggcgaggc gaaacgaagc      300
ggtgccacac cgagcgccgc aagaccgtca cctccgaaga catcgtgtgg gccatgagcc      360
gcctcggctt cgacgactac gtcgcgcccc tcggcgcctt cctccagcgc atgcgcgacn      420
```

```
acagcgaaca cggggggtgaa aacgcggcgg cctgcanggg gtngtggtcn cgccgcgggt      480
cgtctncttg gcgctccctt gccgcaanag atgacaactt gcaccaaacg tctgccgggn      540
tcggaccaaa actnttccct gttgcaggaa tacccgtccn gggccnttcc cccccnaatc      600
caaccatttg gtttcccctt gc                                               622
```

<210> 21
<211> 65
<212> PRT
<213> Zea mays

<220>
<221> VARIANT
<222> (1)...(65)
<223> Xaa = any amino acid

<400> 21

```
Arg Glu Gln Asp Xaa Xaa Met Pro Ile Ala Asn Val Ile Arg Ile Met
 1               5                  10                  15
Arg Xaa Xaa Leu Pro Xaa His Ala Lys Ile Ser Asp Asp Ala Lys Glu
            20                  25                  30
Xaa Ile Gln Glu Cys Val Ser Glu Tyr Ile Ser Phe Xaa Thr Xaa Glu
        35                  40                  45
Ala Asn Xaa Arg Cys Xaa Xaa Xaa Xaa Arg Lys Thr Xaa Xaa Xaa Glu
    50                  55                  60
Xaa
65
```